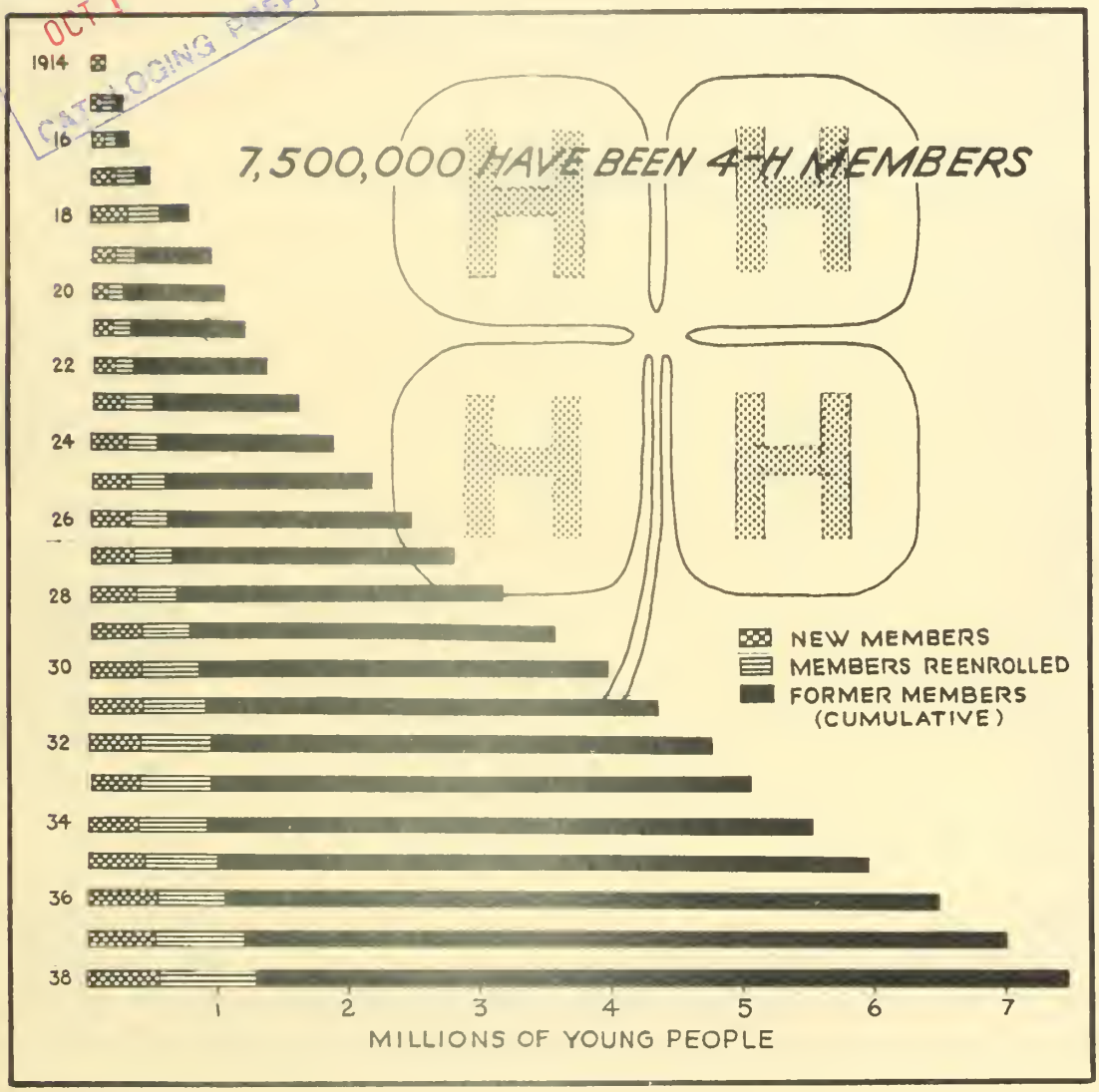
25 YEARS OF 4-H CLUB WORK

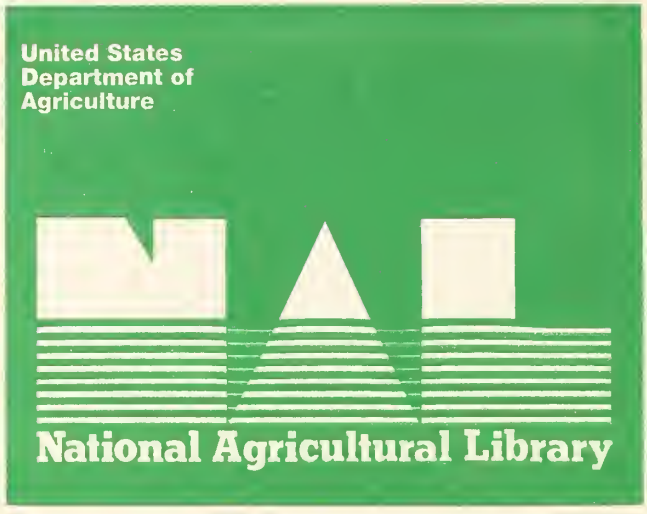
Analysis of Statistical Trends

(With special reference to 1938)

BARNARD JOY, Agriculturist
Extension Surveys and Reports



COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
EXTENSION SERVICE CIRCULAR 312 1939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High Lights of This Report

Statistical measure of 4-H Club work	1930-1932	1933-1935	1936-1938
Percentage of:			
Rural boys and girls being reached	33.5	33.3	44.0
Members reenrolling	57.7	58.9	60.8
Members completing their projects	70.3	71.4	72.3
Average annual enrollment per county extension agent	203	196	192

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DISTRIBUTION: A copy of this circular has been sent to each State extension director; State leader in county agricultural and home demonstration work; State leader and assistant State leader in 4-H Club work; agricultural-college library; and experiment-station library.

Issued June 1939.

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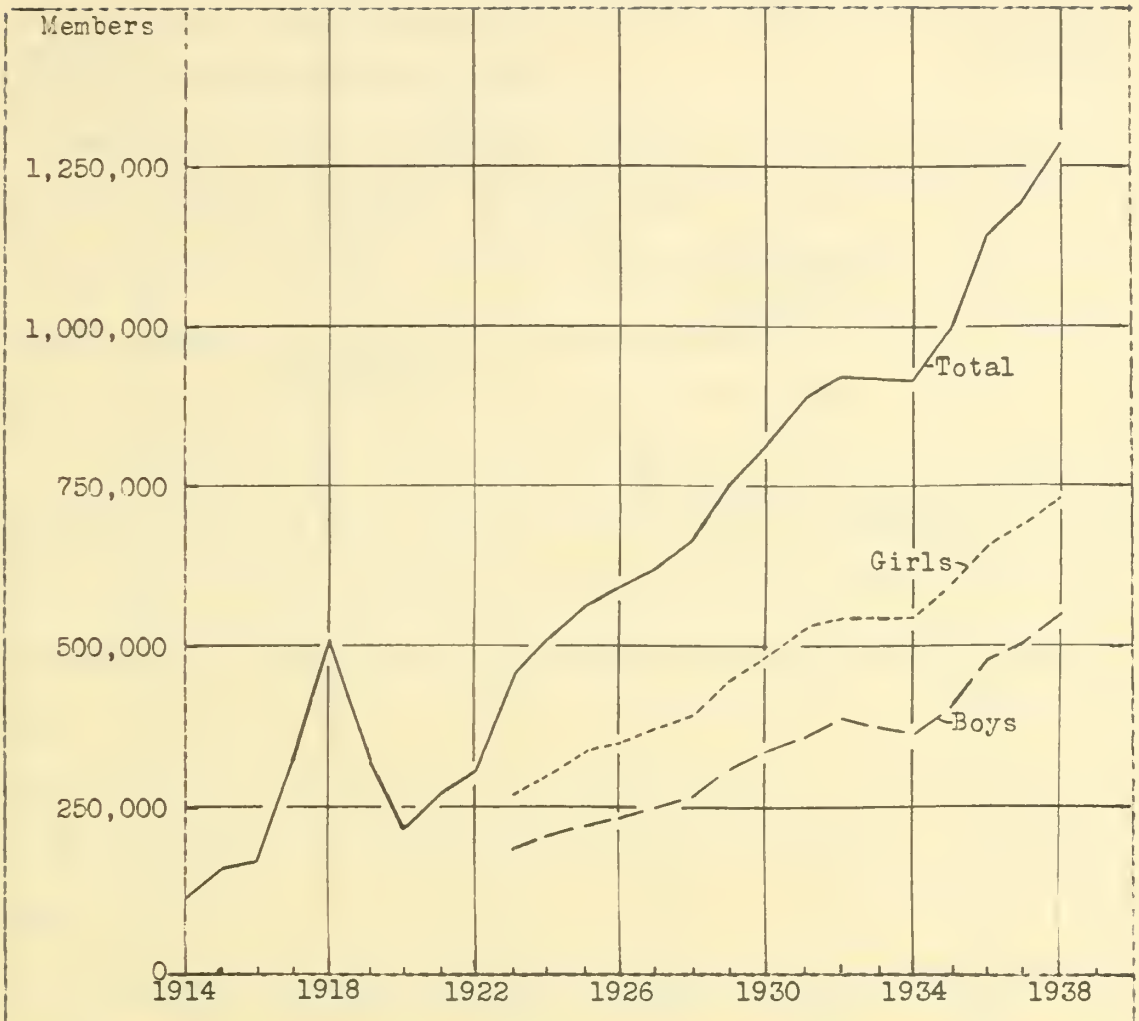
4-H Club Enrollment

Since the passage of the Smith-Lever Act in 1914, 7,548,959 different boys and girls have been 4-H Club members in the 48 States, Alaska, Hawaii, and Puerto Rico (cover page). Except for two short periods, one following the World War and the other during the depression, the number of boys and girls enrolled each year has increased (fig. 1). The 1938 enrollment of 1,286,029 was a 7.8 percent increase over the 1937 enrollment. During the 10-year period, 1928 to 1938, the number of boys and girls enrolled in 4-H Clubs almost doubled. The upward trend in enrollment has been uniform for both boys and girls. Since separate data for boys and girls were first available in 1923, there has been little change in the ratio of three girls to every two boys enrolled. In 1938 the exact percentages were girls, 57.4, and boys, 42.6.

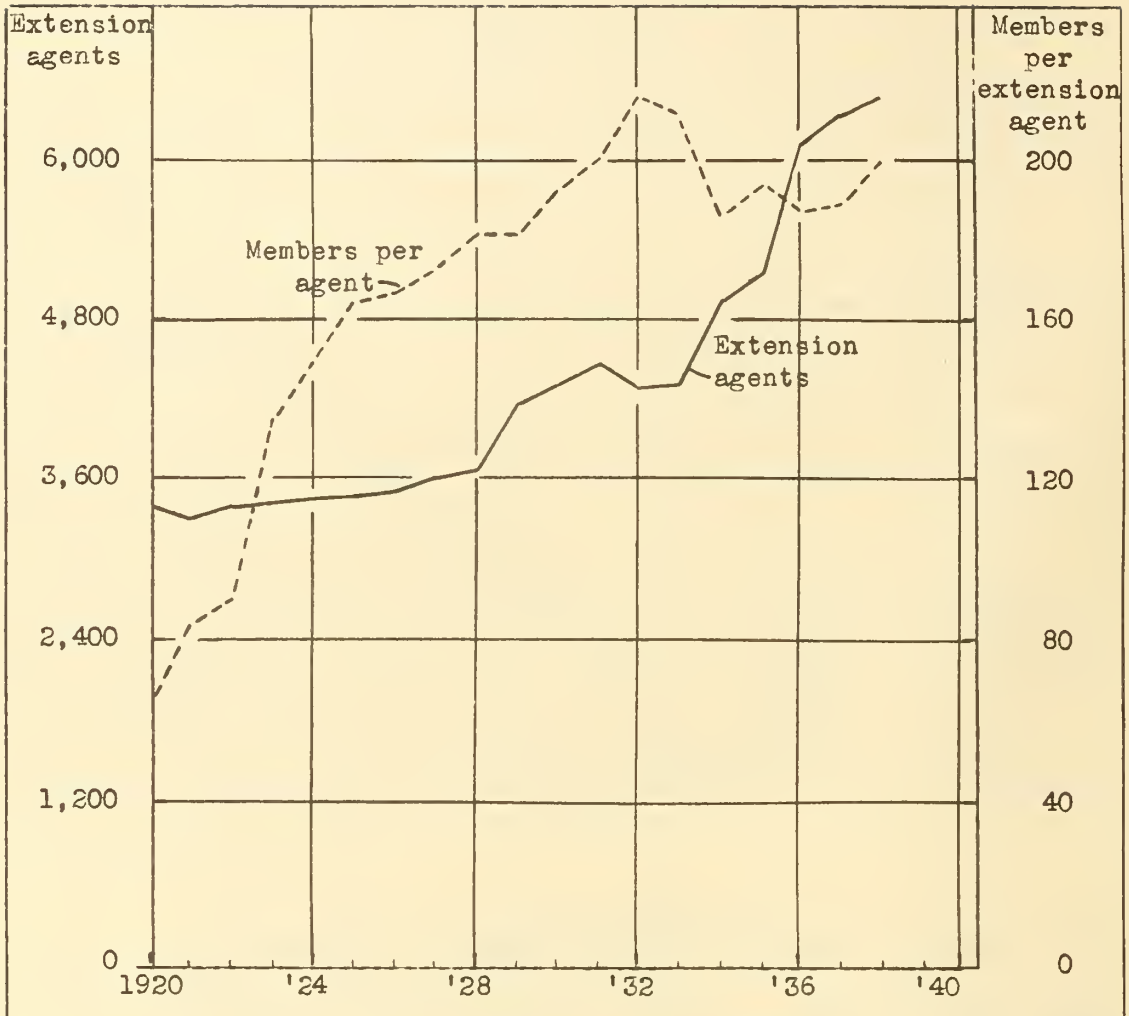
Enrollment per County Extension Agent

The increase in enrollment from 222,000 in 1920 to the present enrollment of 1,286,000 may be divided into three types of growth. From 1920 to 1928, the number of county extension agents increased only slightly (fig. 2). During this time, however, the average number of 4-H members enrolled by extension agents increased 174 percent, from 66 to 181. From 1928 to 1933, the number of county extension agents increased from 3,675 to 4,339, 18 percent. During this same period, the average number of members enrolled by extension agents also showed a slight increase, 17 percent. From 1933 to 1938, the number of county extension agents has increased 49 percent, from 4,339 to 6,444. The average number of members enrolled per agent dropped from 212 in 1933 to 186 in 1934.



Year	Boys	Girls	Total	Year	Boys	Girls	Total
1914			116,262	1927	249,553	370,159	619,712
1915			161,518	1928	270,534	393,406	663,940
1916			169,652	1929	303,509	452,587	756,096
1917			336,900	1930	333,197	489,517	822,714
1918			518,154	1931	360,653	529,721	890,374
1919			323,340	1932	381,573	544,039	925,612
1920			222,137	1933	378,143	543,822	921,965
1921			273,614	1934	366,703	549,359	916,062
1922			305,622	1935	405,691	592,053	997,744
1923	187,277	271,797	459,074	1936	479,232	666,276	1,145,508
1924	209,810	300,545	510,355	1937	503,524	688,861	1,192,385
1925	224,633	340,413	565,046	1938	548,172	737,857	1,286,029
1926	234,078	352,078	586,156				

Figure 1.--4-H Club enrollment, 1914-38



Year	Extension* agents	Enrollment per agent	Year	Extension* agents	Enrollment per agent
1920	3,378	66	1930	4,293	192
1921	3,263	84	1931	4,444	200
1922	3,402	90	1932	4,277	216
1923	3,412	134	1933	4,339	212
1924	3,446	148	1934	4,926	186
1925	3,455	164	1935	5,169	193
1926	3,513	167	1936	6,129	187
1927	3,603	172	1937	6,300	189
1928	3,675	181	1938	6,444	200
1929	4,170	181			

*Number of extension agents on June 30.

Figure 2.--Number of county extension agents and 4-H Club enrollment per agent, 1920-1938

Since 1934 there has been a slight increase, with the average extension agent enrolling 200 members in 1938.

A study of the percentage of extension time devoted to 4-H Club work was conducted in 1938. For the country as a whole, the portion of extension time devoted to work with 4-H Club members and older youth was 29 percent. On this basis if agents gave their full time to 4-H Club work, each agent would be enrolling 690 members.

In some States county 4-H Club agents give their full time to the conduct of 4-H Club work, and agricultural and home demonstration agents devote their time to conducting extension work with adult farmers and homemakers. In other States, the agricultural and home demonstration agents devote part of their time to 4-H Club work. It is difficult to compare the 4-H enrollment of the States because of differences in size, youth population, and plans for conducting 4-H Club work. The total number of county extension workers per State is an approximate measure of the amount of funds and personnel available for carrying on extension work. Whether a portion of each agent's time or the full time of part of the agents is devoted to 4-H Club work, the enrollment per county extension agent can be used as a measure of the number of boys and girls enrolled per unit of extension time or money.

There is wide variation among the various States in the number of 4-H Club members enrolled per county extension agent for 1938 (fig. 3). This is in part accounted for by the fact that there is considerable variation among the States in respect to the amount of time devoted to 4-H Club work. It is partly accounted for by considerable variation among the States in the number of members enrolled by an agent giving

full time to club work (or by several agents devoting an amount of time to club work equivalent to that of a full-time club agent).

Percentage of Boys and Girls Reached by 4-H Club Work

An increase in total enrollment has resulted in an increase in the percentage of boys and girls who are 4-H members. The 1938 enrollment is 10.24 percent of the 12,558,815 rural (farm and nonfarm) boys and girls 10 to 20 years of age inclusive reported in the 1930 Census. This does not mean that 4-H Club work is reaching only 10 percent of the rural boys and girls. The average member continues in the work for $2\frac{1}{2}$ years, or 23 percent of the possible 11-year period of membership. For this reason the percentage of boys and girls who are 4-H members for an average period of $2\frac{1}{2}$ years is more than 4 times the percentage of boys and girls who are enrolled in 4-H Club work for any one year.

The percentage of eligible boys and girls who join the 4-H Club is a measure of the thoroughness of the work in covering its potential field. Although a few urban youth join 4-H Clubs, the field of 4-H Club work is usually considered to be all rural boys and girls, both farm and nonfarm. The best measure of the percentage of rural boys and girls who are being reached by the 4-H program is to compare the new membership each year with the number of rural boys and girls who pass the average 4-H starting age during the year. The number who annually pass the average starting age of 12.2 years is calculated by averaging the number of 11-year-olds and 12-year-olds reported by the 1930 Census (1,208,978). The 544,799 new members enrolled in 1938 are equivalent to 45.1 percent of those who have passed the average starting age during

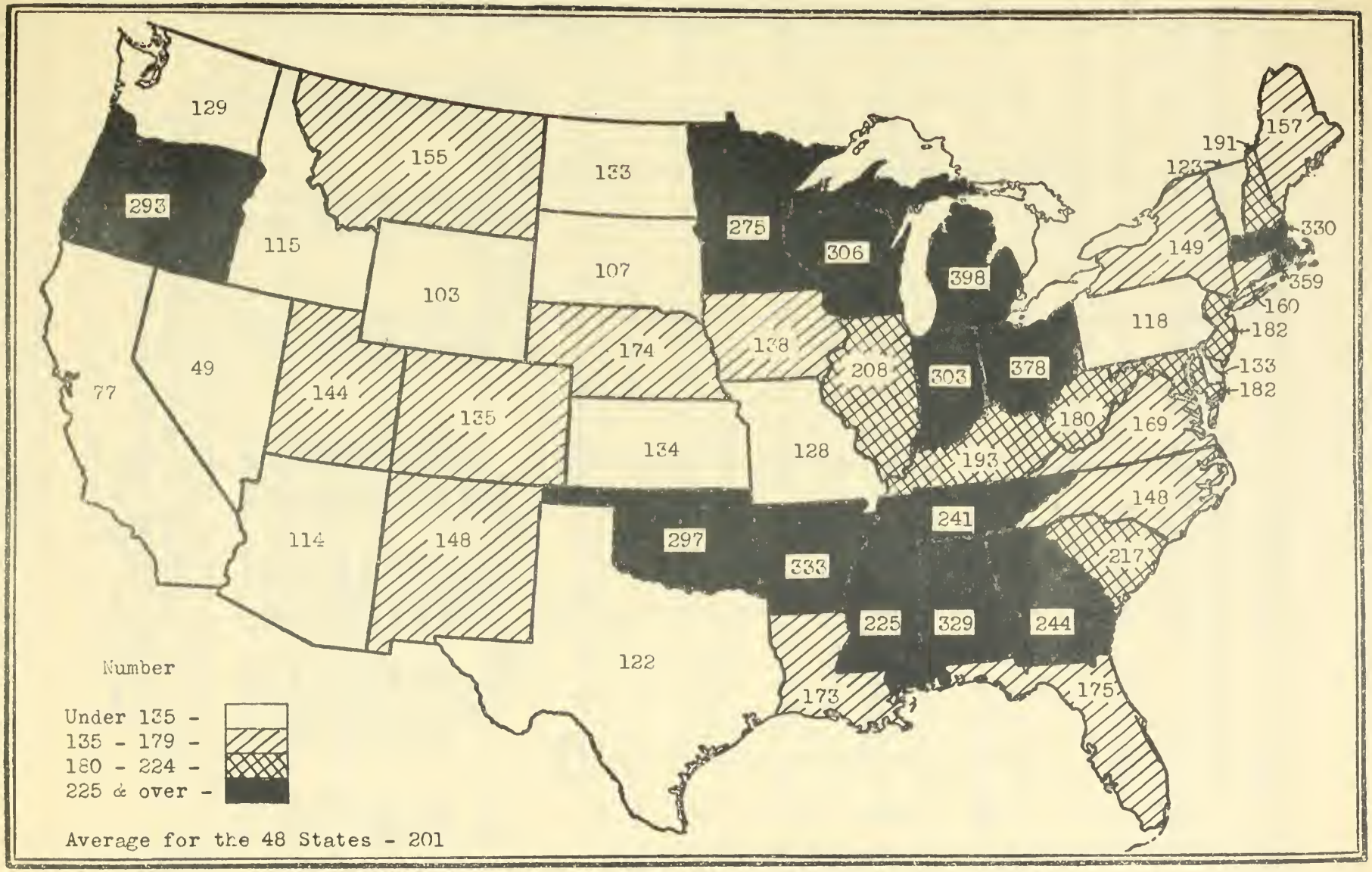


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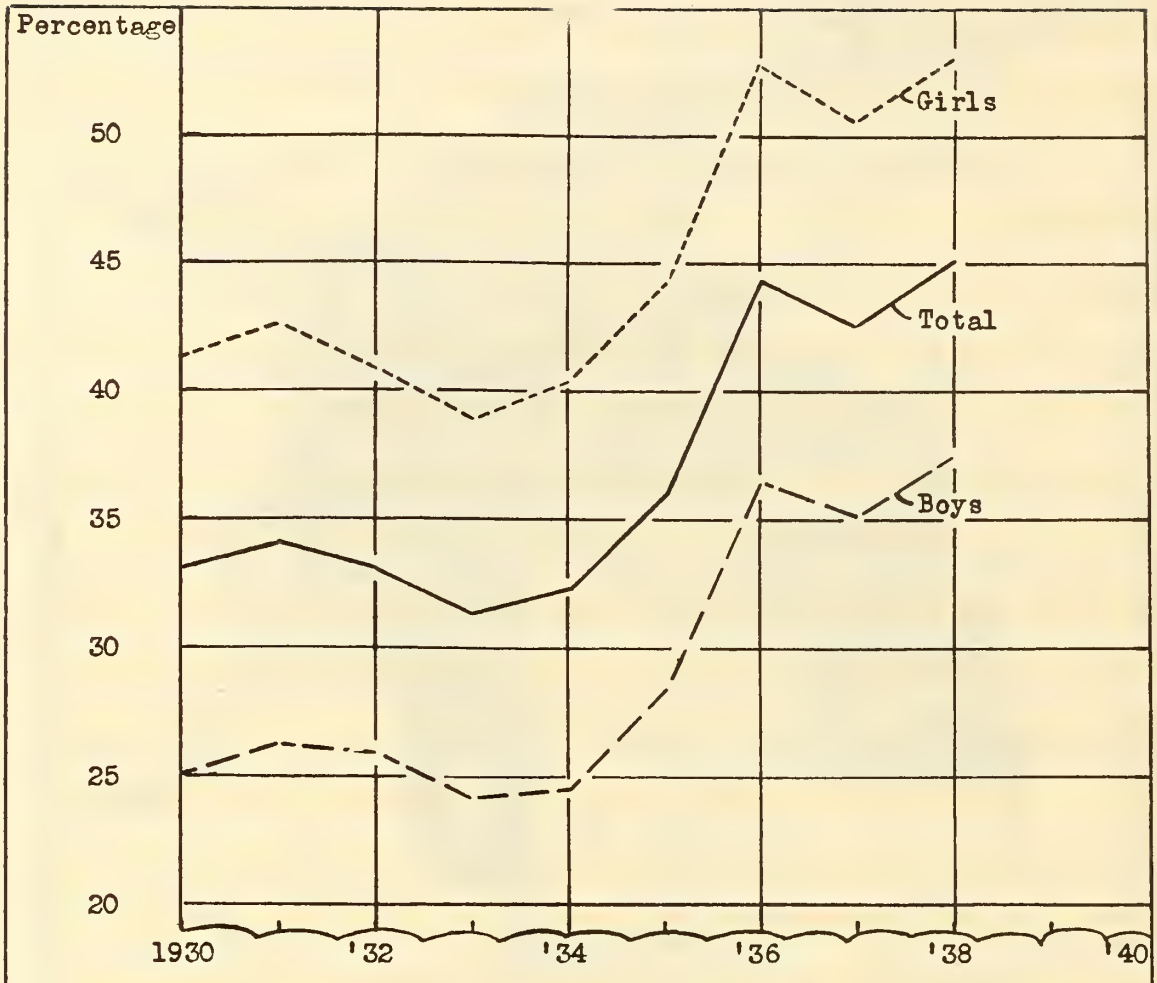
Figure 3.--Average number 4-H members enrolled per county extension agent - 1938



Year	Number new members			Percentage of rural boys and girls reached by 4-H		
	Boys	Girls	Total	Boys	Girls	Total
1930	156,614	243,708	400,322	25.3	41.3	33.1
1931	161,394	250,765	412,159	26.1	42.5	34.1
1932	160,421	240,739	401,160	25.9	40.8	33.2
1933	150,224	229,810	380,034	24.3	38.9	31.4
1934	152,955	238,484	391,439	24.7	40.4	32.4
1935	175,614	261,174	436,788	28.4	44.2	36.1
1936	225,509	311,386	536,895	36.4	52.8	44.4
1937	217,263	298,430	515,693	35.1	50.6	42.6
1938	232,023	312,776	544,799	37.5	53.0	45.1

Figure 4.--Ratio (in percentage) of new 4-H members to the rural (farm and nonfarm) boys and girls of 4-H starting age, 1930-1938

the year. In the years 1930 to 1934, the number of new members enrolled annually was approximately 400,000, or one-third of those annually reaching the starting age. Since 1936, the annual enrollment of new members has been between 500,000 and 550,000, an increase of approximately 30 percent over the 5-year period beginning in 1930 (fig. 4).

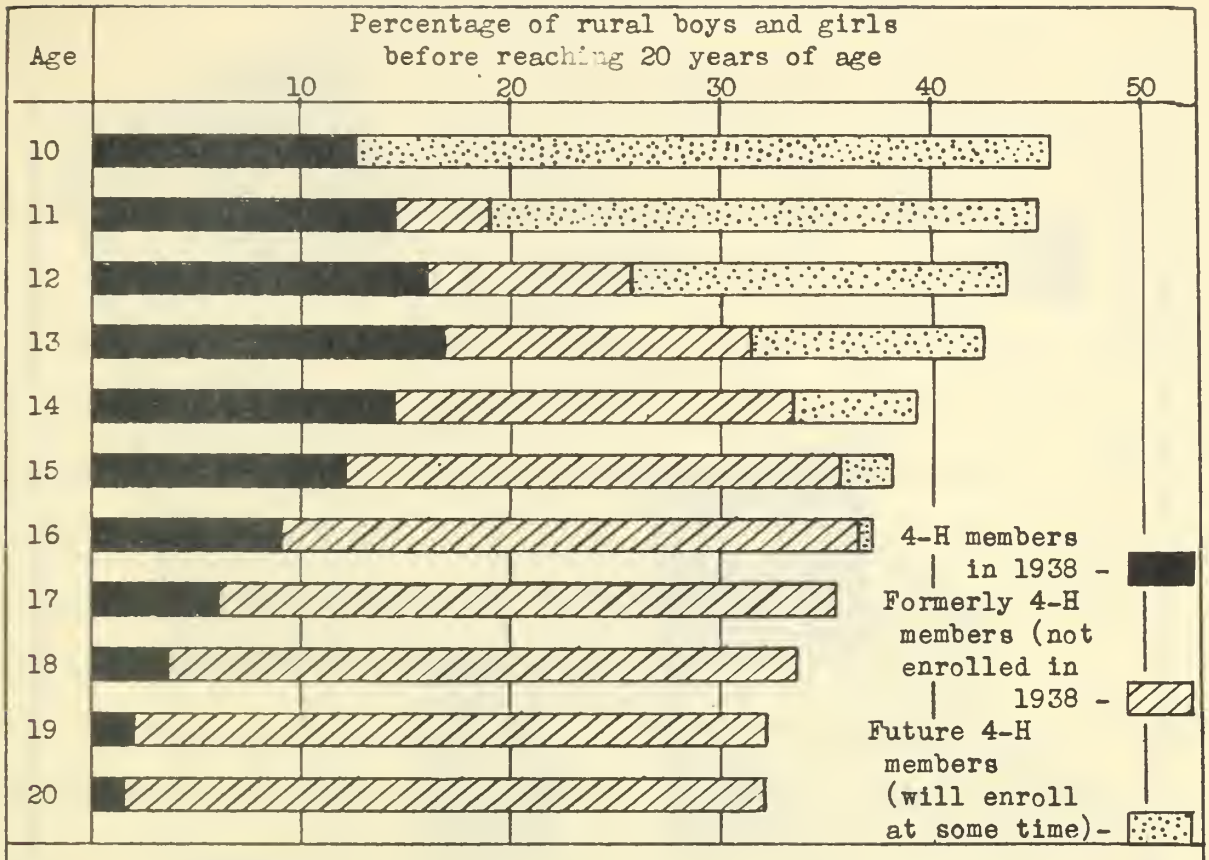
Based upon the number of farm homes and other homes from which 4-H Club members were enrolled in 1938, it was estimated that 80.3 percent of the new members in 1938 were farm boys and girls. On this basis, 4-H Club work is reaching 58.7 percent of the farm boys and girls. This is determined by dividing 437,474 (80.3 percent of 544,799) by 745,085, the number of farm boys and girls who reached the average 4-H Club starting age during the year. In a similar manner it is estimated that 4-H Club work is reaching 23.1 percent of the rural nonfarm boys and girls.

More than 12 percent of the rural young people in each single age group 10 to 15 inclusive were enrolled as 4-H Club members in 1938 (fig. 5). There were 9 percent of those 16 years of age who were 4-H members in 1938. The percentage of present members decreases with increased age. However, among the rural youth 16 years of age and older more than 25 percent are former 4-H Club members. Based on the age of new members enrolled in 1938, there are large numbers of rural boys and girls 10, 11, and 12 years of age who will become 4-H Club members before their 16th or 17th birthdays.

Approximately a third of the rural boys and girls 17 to 20 years of age have been 4-H Club members. This proportion is determined largely by the fact that during the years 1930 to 1934 approximately a third of the rural boys and girls reaching the average starting age were enrolled

as new members. Assuming that 4-H Club work will continue to enroll new members in approximately the same numbers each year for the next 5 years as in 1938, 45 percent of those who are now 10, 11, and 12 years of age either have joined or will join a 4-H Club. A typical situation is for a boy or girl to join a 4-H Club when 12 years of age and to continue in the work for 2 or 3 years until he or she is 14 or 15 years of age.

There is a wide variation among the States in the portion of rural boys and girls that are being reached by 4-H Club work (fig. 6). The data presented are the ratio in percentage of the first-year 4-H members to the total number of rural boys and girls reaching the starting age. In the three States where this ratio in percentage is 100 or greater, a portion of the 4-H enrollment is among boys and girls reported as urban in the Census. Part of these young people are living on farms included within the limits of an urban community. These three States and three others that were in 1938 reaching more than 80 percent of the rural young people cannot look forward to any significant increase in 4-H enrollment by enrolling a larger number of new members each year. In contrast, 10 States that are reaching less than 30 percent of the rural boys and girls could increase their 4-H enrollment 300 percent by increasing the number of new members enrolled each year. The 17 States now reaching more than 50 percent of the rural boys and girls can make large increases in total enrollment only by increasing the length of time that 4-H members continue in the work.



Age	Number of rural boys and girls[1]	4-H enrollment in 1938[2]	Percentage rural boys and girls members in 1938	Calculated[3] percentage of former members	Calculated[4] percentage of future members	Total that will be reached by 4-H work
10	1,272,548	160,635	12.6	-	32.9	45.4
11	1,170,463	170,188	14.5	4.4	26.2	45.1
12	1,247,494	199,815	16.0	9.5	18.0	43.5
13	1,159,680	195,122	16.8	14.5	11.1	42.4
14	1,204,999	173,895	14.4	18.9	5.9	39.2
15	1,142,131	138,350	12.1	23.4	2.6	38.1
16	1,176,014	105,661	9.0	27.4	0.6	37.0
17	1,113,840	67,736	6.1	29.3	-	35.4
18	1,105,789	39,328	3.6	29.9	-	33.5
19	998,930	21,087	2.1	30.0	-	32.1
20	966,927	14,212	1.5	30.5	-	32.0

1/ 1930 Census - Continental U.S.
2/ Includes enrollment in territories.
3/ Based on enrollment 1930 - 1937.
4/ Based on enrollment of new members in 1938.

Figure 5.--Participation of rural youth of various ages in the 4-H Club program

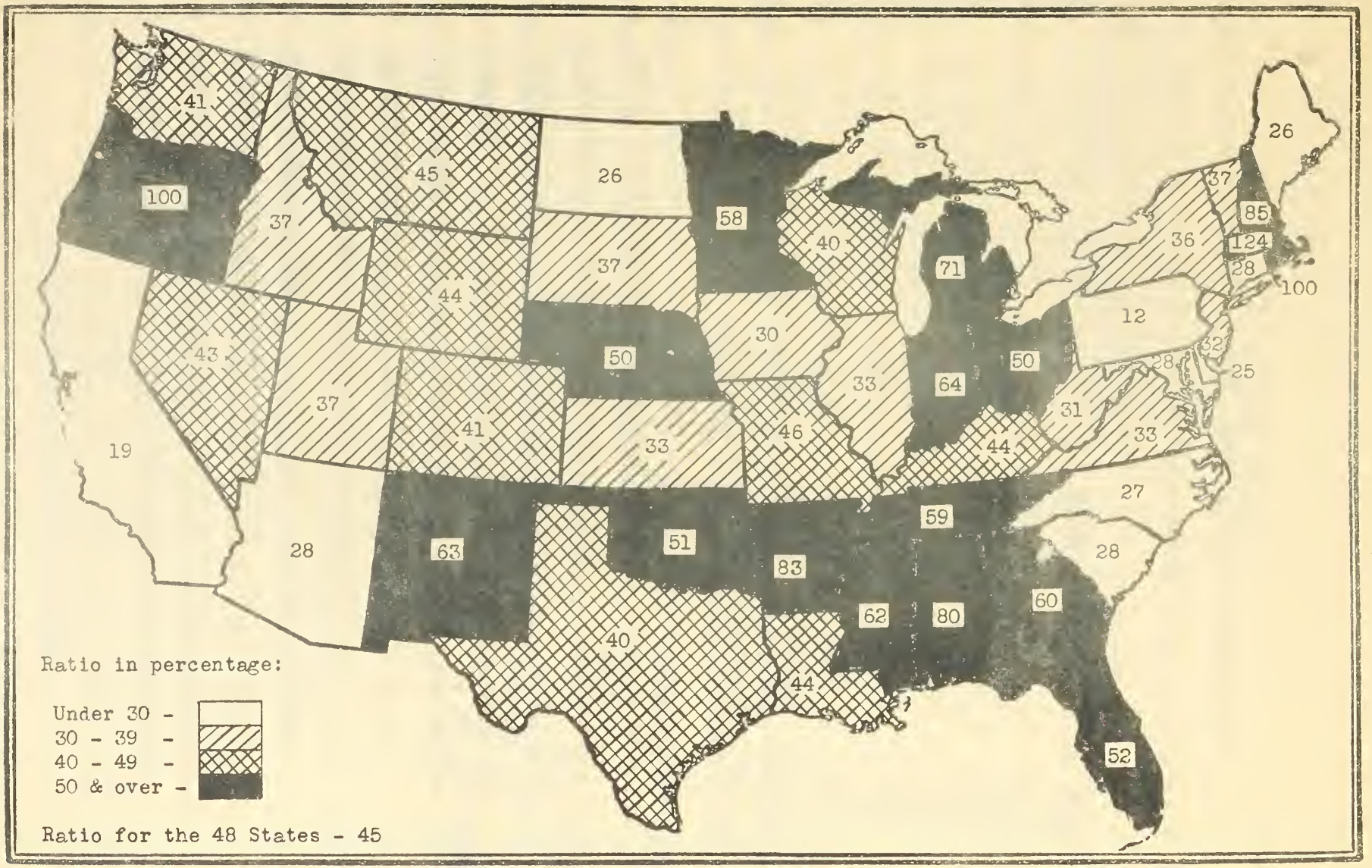


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Figure 6.--Ratio of first-year 4-H Club members enrolled in 1938 to total number of rural (farm or nonfarm) boys and girls reaching the average 4-H starting age (average of those reported as 11 years of age and 12 years of age in 1930 Census)

Percentage of Members Who Reenroll

Data on the length of time that 4-H members continue in the work are presented in figure 7. Approximately 40 percent of those who join do not enroll a second time. Approximately twenty-two percent enroll for 2 years only, 14 percent for 3 years, and 24 percent continue for 4 years or longer. Since 1930, when data of this type were first available, there has been a slight tendency for the percentage dropping out after only 1 year of membership to decrease. There has also been a slight tendency for the percentage who continue in the work 4 years or longer to increase.

The single measure of length of membership which can be calculated annually is the percentage of those who were members the previous year who reenroll. The percentage of reenrollment for 1938 is calculated by subtracting the first-year members (new members) in 1938 form the total enrollment and dividing by the total enrollment in 1937. In 1938 this percentage was 62.2. This percentage is higher than for any single year since 1930 when the data were first available. There is only a slight difference betweenthe percentage of boys and the percentage of girls reenrolling (fig. 8). In general the percentage of reenrollment has increased in the 8-year period, although the increase has not been a steady one. An increase in the percentage of reenrollment results in an increase in the average length of time that 4-H members continue in the work.

If over a period of years the average percentage of reenrollment is 50, the average length of time which members continue in the work is 2 years. Likewise if over a period of years the reenrollment is 67 percent, 4-H members are continuing in the work for an average period of 3 years.

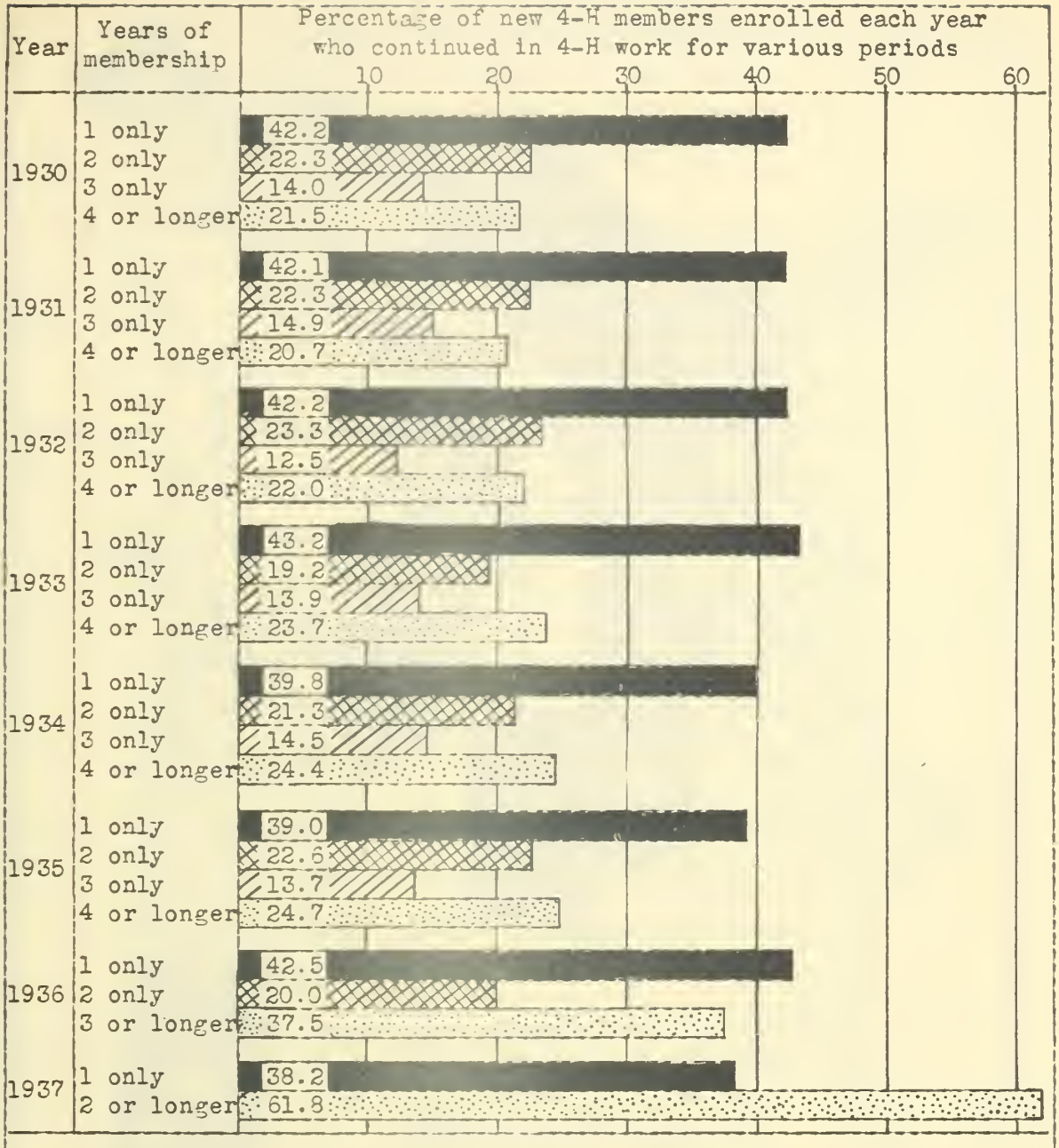
The length of membership in the States shows considerable variation (fig. 9). The percentage of 1937 members who were reenrolled in 1938 was less than 50 in 5 States. In contrast, there were 10 States with a percentage of reenrollment of 67 or over.

Percentage of Completions

Percentage of completion has been widely used as a measure of the success of 4-H Club work. It is determined by dividing the number of boys and girls who are reported as having completed their 4-H projects by the number who are enrolled. The official definitions of enrollment and completion are as follows: "4-H members enrolled are those boys and girls who actually start the work outlined for the year. 4-H members completing are those boys and girls who satisfactorily finish the work outlined for the year."/1 Although these definitions allow the extension worker considerable latitude in outlining the project work for the year and in determining what constitutes satisfactorily finishing the work outlined, the increase in percentage of completions from less than 55 in 1923 to more than 70 in 1931 is probably indicative of an improvement in the quality of the work done by 4-H Club members (fig. 10). Since 1931 the percentage of completions fell below 70 only in 1936 and then very slightly. In 1938 the percentage of completions reached a new high of 74.6.

The variation in percentage of completions among the various States was considerably less in 1938 than it had been for several years. In 1938 the percentage of completions was less than 65 percent in only

/1 Form 285. Combined annual report of county extension workers. U. S. Dept. Agr. Ext. Serv. Revised April 1, 1938.



Year	New 4-H members	Number enrolling 1 year only	2 years only	3 years only	4 years or longer
1930	400,322	168,851	89,295	56,043	86,133
1931	412,159	173,718	91,770	61,537	85,134
1932	401,160	169,294	93,486	49,983	88,397
1933	380,034	164,015	73,082	52,975	89,962
1934	391,439	155,865	83,380	56,665	95,529
1935	436,788	170,106	98,824	59,994	107,864
1936	536,895	227,977	107,367	201,551(3 years or longer)	
1937	515,693	197,166	318,527(2 years or longer)		

Figure 7.--Length of membership of boys and girls first enrolling in 4-H Club work, 1930-1937

Year	Boys	Girls	Total
1930	58.2	54.3	55.9
1931	59.8	57.0	58.1
1932	61.3	57.2	58.9
1933	59.7	57.7	58.5
1934	56.5	57.2	56.9
1935	62.7	60.2	61.2
1936	62.5	59.9	61.0
1937	59.7	58.6	59.1
1938	62.8	61.7	62.2

Figure 3.--Percentage of 4-H Club members reenrolling, 1930-1938

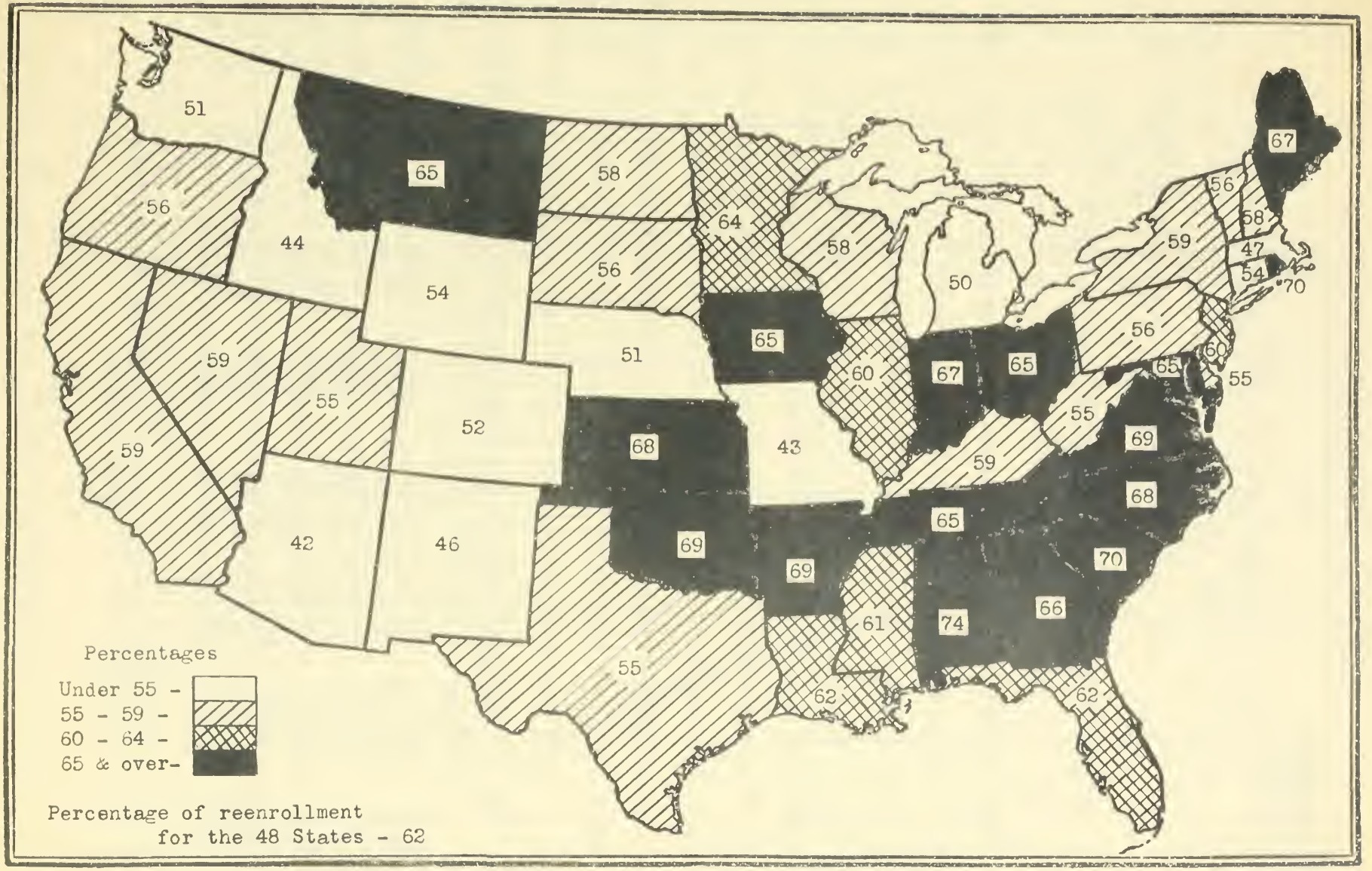


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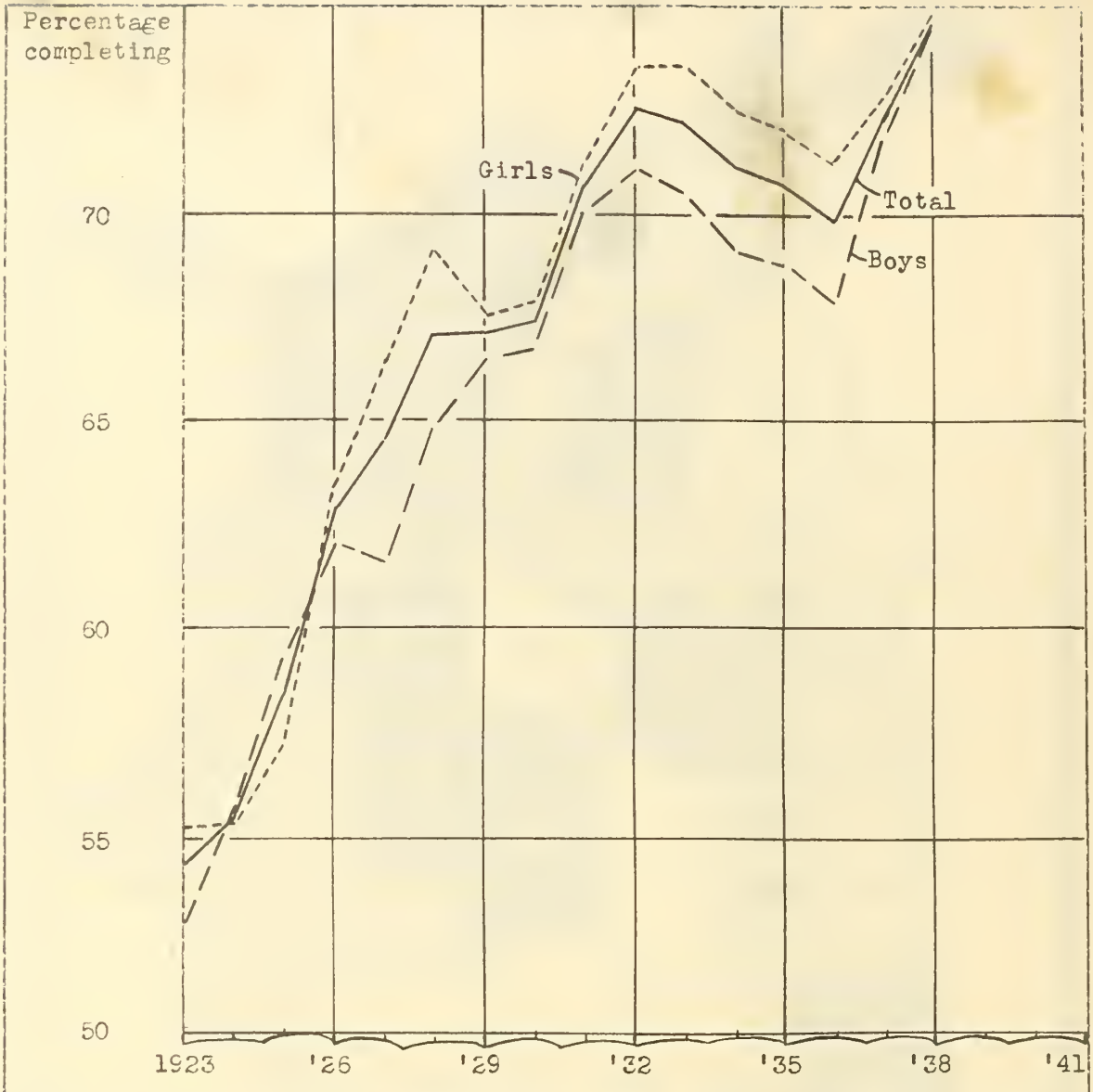
Figure 9.--Percentage of 1937 4-H members who reenrolled in 1938



Year	Boys	Girls	Total	Year	Boys	Girls	Total
1923	52.98	55.26	54.33	1931	69.96	71.15	70.67
1924	55.74	55.34	55.51	1932	71.11	73.41	72.46
1925	59.24	57.22	58.33	1933	70.50	73.42	72.22
1926	62.03	63.37	62.83	1934	69.11	72.52	71.15
1927	61.44	66.40	64.40	1935	68.83	72.04	70.73
1928	64.71	68.96	67.11	1936	67.77	71.25	69.79
1929	66.52	67.52	67.12	1937	71.73	72.70	72.29
1930	66.77	67.80	67.38	1938	74.31	74.78	74.58

Figure 10.--Percentage of 4-H members completing their project work, 1923-38

2 States (fig. 11). The number of States having less than 65 percent completion in earlier years was: 1937, 3; 1936, 10; 1935, 10; 1930, 12; and 1925, 26.

Relation of Size of Enrollment to Reenrollment and Completion

States that have a low 4-H Club enrollment per agent sometimes use as justification that larger number of members would mean a lower quality of work. If percentage of completions and percentage of reenrollment are used as measures of the quality of 4-H Club work, the data for 1938 indicate the opposite to be true. The 16 States with the lowest enrollment per county extension agent have a lower average percentage of completion and a lower percentage of reenrollment than States with larger enrollment per county extension agent (table 1). This does not necessarily indicate that large enrollment is the reason for high completion or high reenrollment. It does indicate that States have developed large enrollments without a loss in the quality of 4-H Club work being done as measured by the percentage of completion and the percentage of reenrollment. As percentage of completions and percentage of reenrollments are only partial measures of the educational value of 4-H Club work, these conclusions should be considered tentative until it is possible to apply measures that more adequately measure the quality of 4-H Club work. It seems likely, however, that the States which have recognized the value of 4-H Club work by developing large enrollments also recognize that a high quality of work is worth while.

Table 1.--Effect of size of 4-H enrollment upon percentage of completion and percentage of reenrollment for 1938 by States

Number of 4-H members per extension agent	Average number per agent	Percentage of completion	Percentage of reenrollment	Number of States
Less than 140	120.5	70.5	56.0	16
140 - 200	167.1	76.2	61.4	16
More than 200	283.4	75.0	64.6	16

Age of 4-H Club Members

Approximately 40 percent of the boys and girls enrolled in 4-H Club work are 10 to 12 years of age; 40 percent are 13 to 15 years of age; and 20 percent are 16 to 20 years of age (fig. 5). The number of members who are 12 and the number who are 13 years of age are larger than for any other single year groups. 4-H Club boys are on an average .3 of a year older than 4-H Club girls (table 2). Since 1930 when accurate data on the age of 4-H Club members became available, the variation in average age has been less than .2 of a year for both boys and girls. From 1930 to 1933 there was a slight tendency for the average age of 4-H members to increase. Between 1933 and 1935 there was little change. Since 1935 there has been a slight tendency for the average age to decrease. The average age of 4-H Club members is determined by two factors, the age at which new members start and the average length of time that the membership has continued in the work.

The average age when boys and girls have started in 4-H Club work has declined one-fourth of a year from 1930 to 1938. This seems to indicate a tendency for boys and girls to enroll at a slightly younger age. As studies have shown that the younger a member starts in 4-H Club

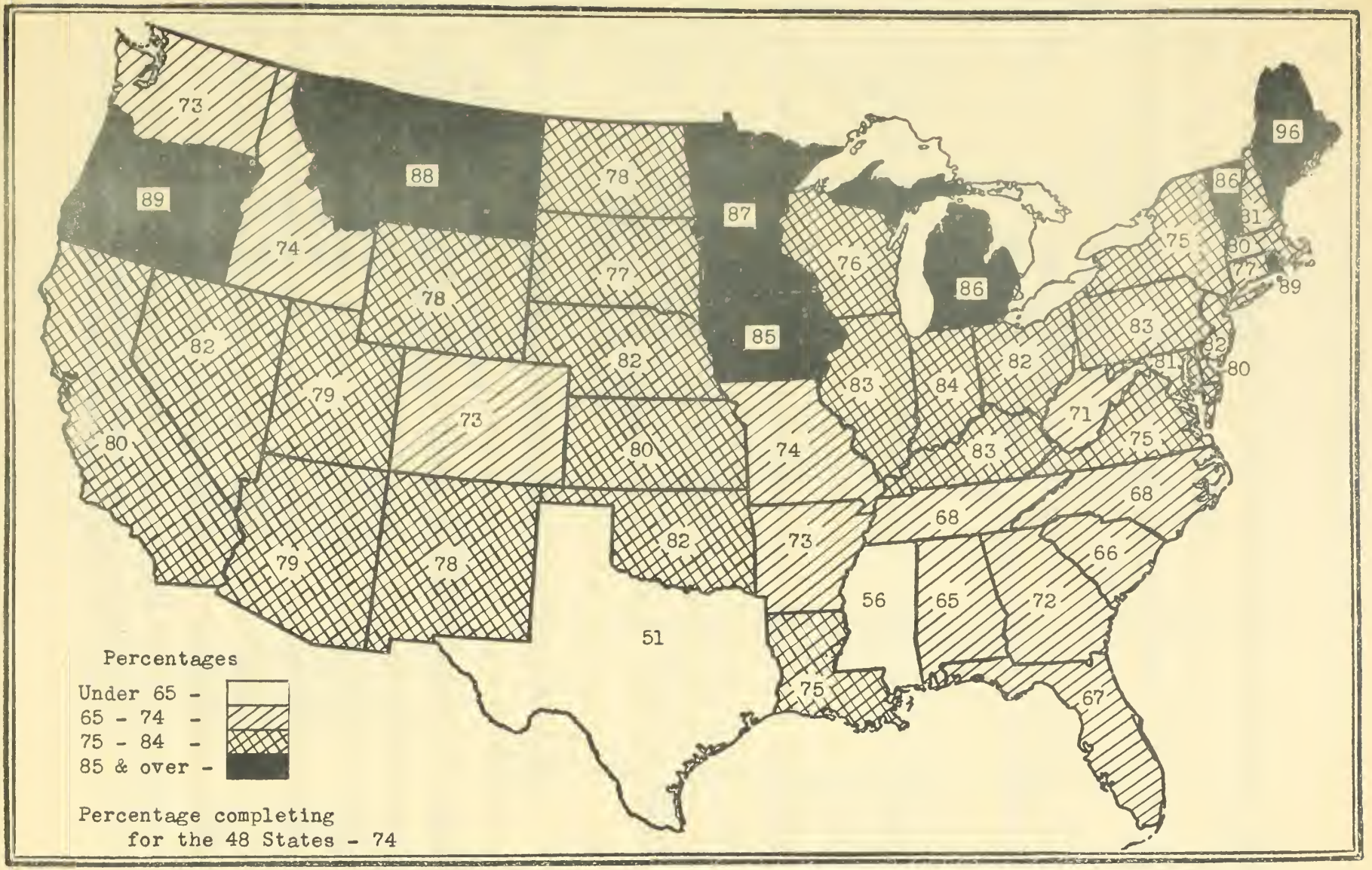


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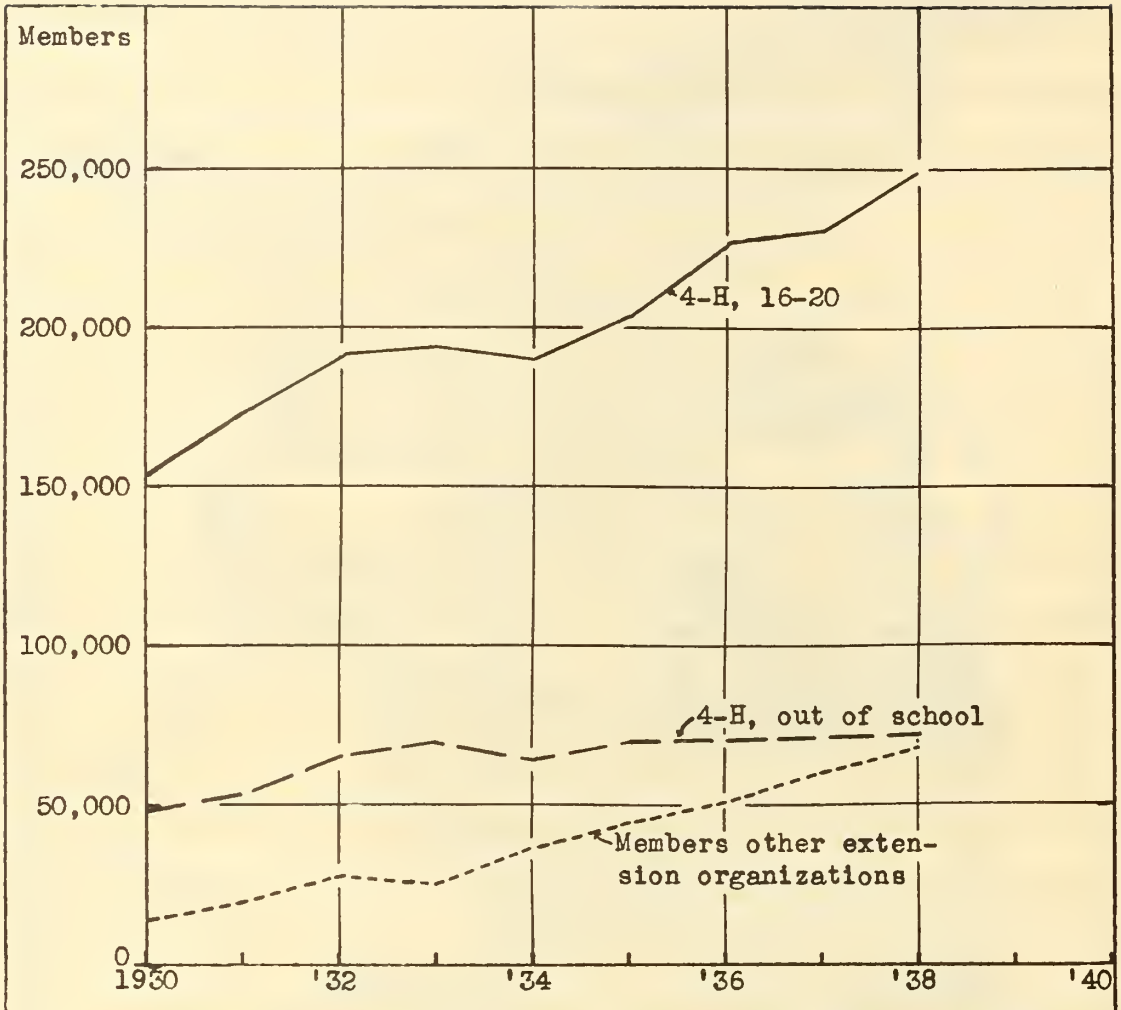
Figure 11.--Percentage of 4-H Club members enrolled who completed their project work - 1938



Year	4-H Club members		Members of extension groups other than 4-H organized for rural youth 16 and older
	16 - 20	Out of school	
1930	152,781	48,478	13,440
1931	173,171	53,048	19,639
1932	191,171	65,776	27,571
1933	194,487	69,907	25,757
1934	190,091	64,514	37,022
1935	203,006	70,200	44,790
1936	226,945	71,038	51,204
1937	231,051	72,351	59,637
1938	248,024	73,075	67,586

Figure 12.--Participation in the extension program by young people 16 years of age and older, 1930-1938

work the longer he is likely to continue in the work, this decline in the average starting age may contribute to longer average length of 4-H membership and an increase in the percentage of reenrollment.

Table 2.--Average age of 4-H Club members

Year	Average age of club members		Average starting age/1 of club members	
	Boys	Girls	Boys	Girls
1930	13.49	13.22	12.46	12.26
1931	13.56	13.24	12.46	12.22
1932	13.64	13.28	12.41	12.16
1933	13.67	13.32	12.34	12.11
1934	13.67	13.31	12.32	12.08
1935	13.66	13.28	12.36	12.05
1936	13.56	13.22	12.38	12.07
1937	13.61	13.26	12.37	12.06
1938	13.54	13.20	12.28	11.96

/1 Correction factor of 1 year has been added. Many agents report the age of the member at the time enrolled instead of at the end of the year. In addition to this, those reported as 11 years old include all who are not yet 12, many of whom are nearer to 12 than to 11 years of age.

Participation in Extension, of Youth 16 and Older

In 1930 there were 152,781 4-H Club members 16 to 20 years of age (fig. 12). This was 18.6 percent of the total enrollment. By 1938 the number of members 16 or older had increased 62 percent to 248,024. This increase is only slightly greater than the increase in total 4-H Club membership during the same period. In 1938 the members 16 to 20 years of age composed 19.3 percent of the total enrollment.

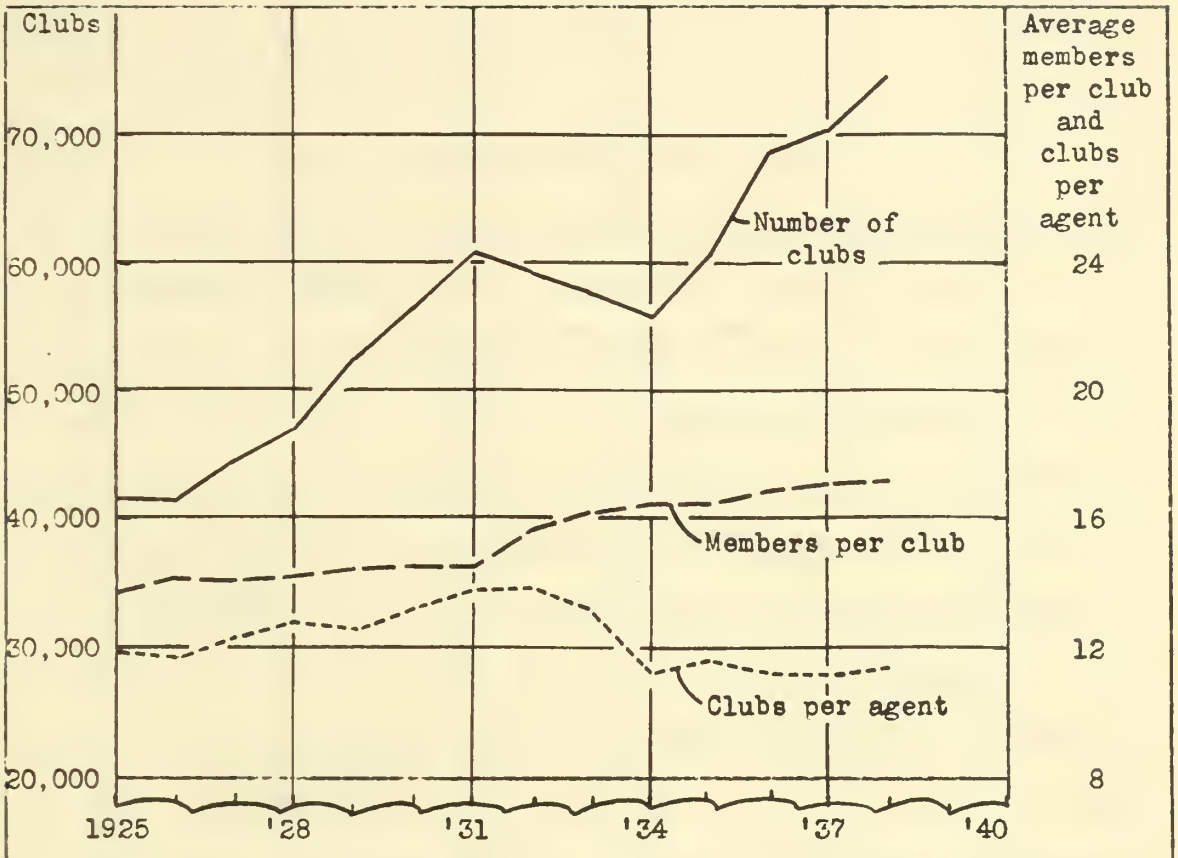
A considerable portion of the 4-H members 16 to 20 years of age do not attend school. The number of out-of-school members increased from 48,478 in 1930 to 73,075 in 1938, 51 percent.

During the period from 1930 to 1938 considerable attention has been given to the development of extension groups other than 4-H Clubs for young people 16 years of age and older. The membership of these clubs is drawn principally from the rural young people 18 to 25 years of age. In the 9-year period, the membership of clubs of this type has increased 403 percent from 13,440 to 67,586.

Organized 4-H Clubs

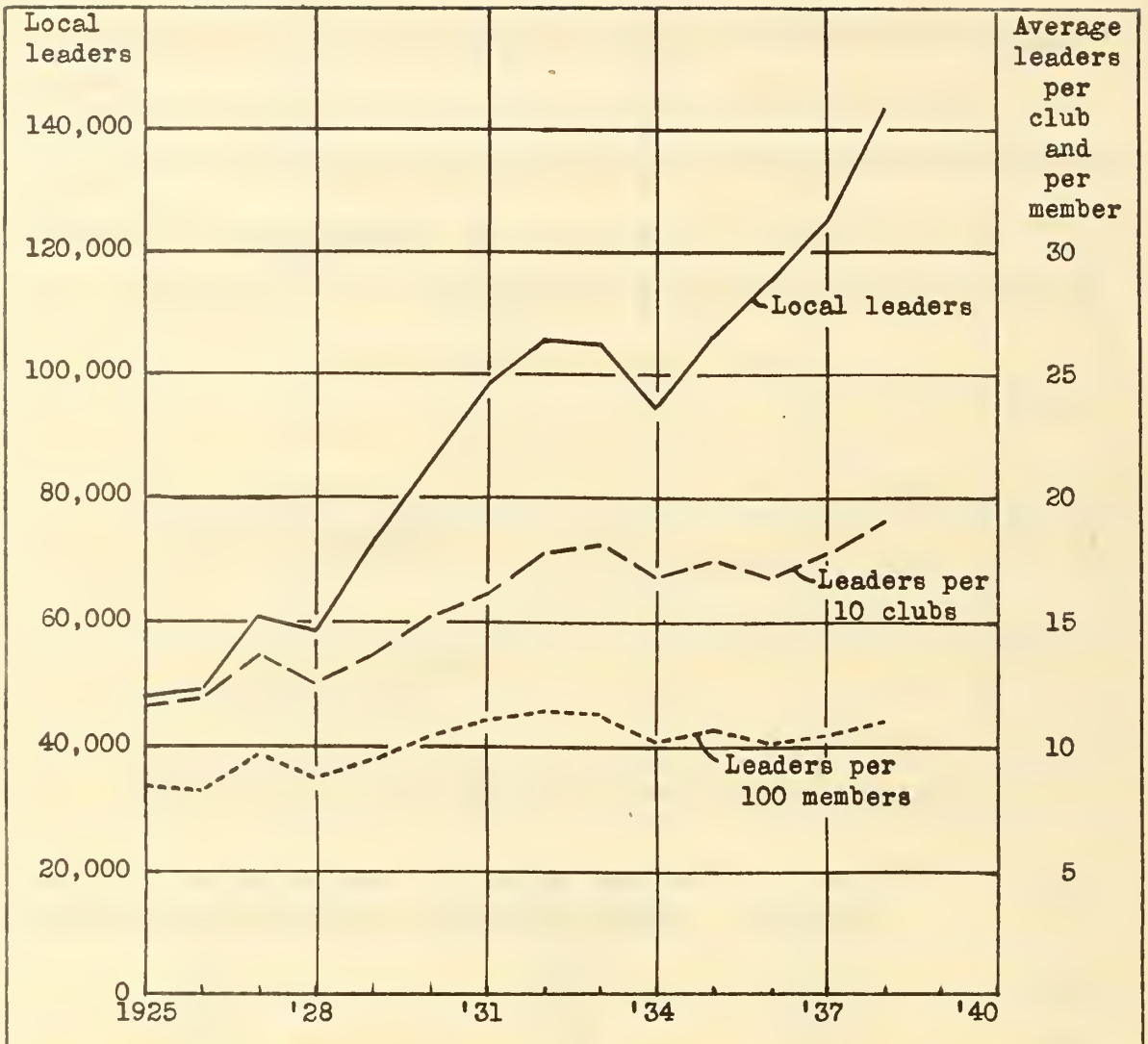
Since 1926 the number of organized 4-H Clubs has increased annually except for the period 1932 to 1934 (fig. 13). The increase in the number of clubs has not been as rapid as the increase in total membership, indicating that there has been a definite increase in the average number of members enrolled in each 4-H Club. Assuming that the number of 4-H members who do not belong to an organized 4-H Club is too small to be of major significance, the average number of members per club has been calculated by dividing the total enrollment by the number of clubs. The average number of members per club calculated in this way has increased steadily from 13.7 in 1925 to 17.2 in 1938.

In 1925 the county extension agents supervised an average of approximately 12 4-H Clubs. The number of clubs per extension agent increased to 13.8 in 1932. With the addition of new extension agents in the years that followed 1932, the number of clubs per agent decreased to 11.2 in 1936 and 1937. In 1938 the average number of clubs supervised by extension agents was 11.6, only slightly less than in 1925. These data indicate that the increase in average number of members supervised by extension agents from 164 in 1925 to 200 in 1938 has been a result of an increased



Year	Number of 4-H clubs	Average number of members per club	Average number of clubs per county extension agent
1925	41,286	13.7	11.9
1926	41,234	14.2	11.7
1927	44,188	14.0	12.3
1928	46,671	14.2	12.7
1929	52,180	14.5	12.5
1930	56,180	14.6	13.1
1931	60,781	14.6	13.7
1932	59,081	15.7	13.8
1933	57,401	16.1	13.2
1934	55,685	16.4	11.3
1935	60,720	16.4	11.7
1936	68,341	16.8	11.2
1937	70,306	17.0	11.2
1938	74,594	17.2	11.6

Figure 13.--4-H Clubs and their membership, 1925-1938



Year	Number local leaders	Average number local leaders for 10 clubs	Average number local leaders for 100 members
1925	47,995	11.6	8.5
1926	48,899	11.8	8.3
1927	60,182	13.6	9.7
1928	58,258	12.5	8.8
1929	71,636	13.7	9.5
1930	85,344	15.2	10.4
1931	98,394	16.2	11.0
1932	105,254	17.8	11.4
1933	104,503	18.2	11.3
1934	93,951	16.9	10.2
1935	106,403	17.5	10.7
1936	115,488	16.8	10.1
1937	125,180	17.8	10.5
1938	143,017	19.2	11.1

Figure 14.--Local leadership of 4-H Club work, 1925-1938

number of members per club rather than an increase in the number of clubs supervised by each agent.

Local Leadership in 4-H Club Work

In conducting 4-H Club work the county extension agents have had the assistance of volunteer local leaders. The number of local leaders increased 198 percent from 47,995 in 1925 to 143,017 in 1938. During the period 1925 to 1932, the number of local leaders assisting with 4-H Club work increased more rapidly than the 4-H enrollment. For each 100 members there were 8.5 local leaders in 1925 compared with 11.4 local leaders in 1932 (fig. 14). Since 1932 the increase in the number of local leaders has been at approximately the same rate as the increase in total enrollment. In 1938 the number of local leaders for each 100 4-H members was 11.1. Except for the years of 1934 to 1936, there has been a regular increase in the number of local leaders in relation to the number of 4-H Clubs. In 1925 there were 11.6 leaders for each 10 4-H Clubs. In 1938 there were 19.2 leaders for each 10 4-H Clubs. This would indicate that the usual situation in 1925 was for each 4-H Club to have a local leader. In 1938 most clubs had not only a local leader but also an assistant local leader.

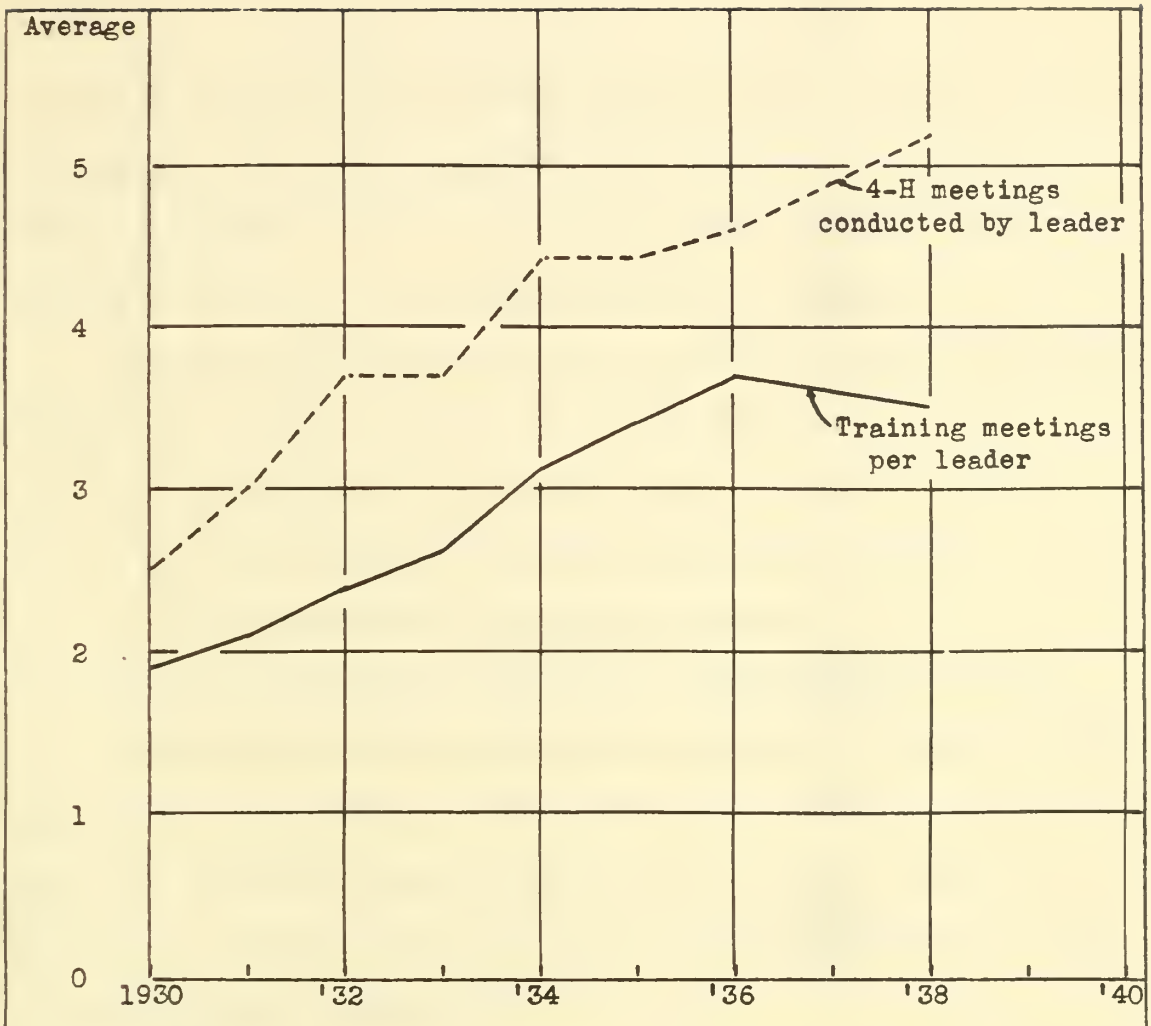
Studies of local leadership have indicated that volunteer local leaders give approximately 1 day to 4-H Club work each month. The time they devoted to 4-H Club work in 1938 would be equivalent to that of 5,700 full-time workers. This is more than 3 times the amount of time devoted to 4-H Club work by county extension agents (29 percent of the time of 6,444 county extension agents is equivalent to 1,870 full-time workers).

Although the number of local leaders for every 100 4-H members has not increased materially in the period 1930 to 1938, there is evidence that during this period local leaders have been assuming more of the responsibility for the conduct of 4-H Club work. In 1930, 140,063 4-H Club meetings were held at which no extension agent was present (fig. 15), or an average of 2.5 meetings per club. In 1938, 391,612 4-H meetings were conducted by the local leaders with no agent present, or an average of 5.2 meetings per club. The number of meetings conducted without agents has shown a steady and very significant increase during this period.

Another factor indicating the increasing responsibility of volunteer leaders for the conduct of 4-H Club work is the fact that each leader attended almost twice as many leader-training meetings on an average in 1938 as in 1930. A total attendance of local leaders at leader-training meetings in 1930 was 163,288, or an average of 1.9 meetings per leader. In 1936 the attendance of leaders at meetings had increased to 424,368, or 3.7 meetings per leader. In 1937 and 1938, the total attendance of leaders at training meetings continued to increase. However, the increase was not as rapid as the increase in total number of local leaders. The average number of training meetings attended by each leader in 1938 was 3.5.

Statistical Measures and Their Value

Although measurements of participation are not valid in evaluating the educational outcomes of 4-H Club work or any other educational undertaking, they may be indicators of progress. Schools and colleges keep



Year	Attendance of local leaders at training meetings		4-H Club meetings conducted by local leader with no agent present	
	Total attendance of leaders	Average number meetings per leader	Total number	Average number per club
1930	163,288	1.9	140,063	2.5
1931	209,517	2.1	180,820	3.0
1932	247,421	2.4	218,166	3.7
1933	268,281	2.6	213,294	3.7
1934	293,295	3.1	243,774	4.4
1935	365,982	3.4	266,098	4.4
1936	424,368	3.7	313,818	4.6
1937	449,706	3.6	347,895	4.9
1938	499,907	3.5	391,612	5.2

Figure 15.--Attendance of local leaders at leader-training meetings and 4-H Club meetings conducted by local leader with no agent present

and analyze records of the number who enroll, attend classes, pass courses, and graduate. The price of advertising in newspapers and magazines is determined largely on the circulation, and radio stations evaluate time in terms of the size of the audience reached.

The four statistical measures of 4-H Club work that are the best indicators of its scope, appeal, and influence are -

1. Enrollment per county extension agent.
2. Percentage of eligible young people reached.
3. Percentage of members who reenroll.
4. Percentage of members who complete their projects.

Because the 4-H Club programs vary somewhat from State to State, particularly in the matter of what constitutes enrollment and completion, any one of these four measures is not a fair basis for comparison. This difficulty is overcome when the four are considered together, as they are compensating in character.

Summary of State Differences

1. Enrollment per county extension agent.
   a. Average for the country as a whole in 1938 was 200 members.
   b. Nine States enrolled less than 125 members per agent.
   c. Eight States enrolled more than 300 members per agent.
   d. Determined in part by percentage of extension time devoted to 4-H Club work.
   e. Determined in part by the number of members enrolled per unit of time devoted to club work.
2. Percentage of boys and girls reached by 4-H Club work.
   a. Average for the country as a whole in 1938 was 45.1.

b. Ten States reached less than 30 percent of the rural boys and girls.

c. Six States reached more than 80 percent of the rural boys and girls.

3. Percentage of members who reenroll.

a. Average for the country as a whole in 1938 was 62.2.

b. In 5 States with percentage of reenrollment less than 50, average length of membership is less than 2 years.

c. In 10 States with percentage of reenrollment more than 67, average length of membership is more than 3 years.

4. Percentage of members who complete their projects.

a. The average for the country as a whole in 1938 was 74.6.

b. In 2 States percentage of completion was less than 65.

c. In 8 States percentage of completion was more than 85.

d. Variation among the States in percentage of completion was less in 1938 than previously.

Summary of National Trends

1. Increasing total enrollment.

2. Increasing number of extension agents since 1932.

3. Slight decrease in number of members enrolled by each agent since 1932.

4. Increasing percentage of rural boys and girls reached by 4-H Club work.

5. Slight increase in percentage of reenrollment and average length of time members continue in 4-H Club work (since 1930 when data were first available).

6. Marked increase in percentage of completions 1923 to 1932; slight increase, 1936 to 1938.

7. Slight tendency to enroll 4-H members at a younger age.

8. Increasing number of youth 16 and older participating in extension program.

9. Increasing number of volunteer local leaders.

10. Local leaders taking increasing amount of responsibility for conduct of the work.

Supplement

Table 3 presents additional statistical data by States for 1938.

Table 3.--4-H Club and other data by States, 1938

State	Enrollment 1937	1937 members re-enrolled in 1938	Percentage re-enrolled	New members 1938	Total enrollment 1938	Total completions 1938	Percentage completion 1938	County extension agents[1] 1938	Members per county extension agent	Rural boys and girls reaching 4-H starting age	Percentage reached by club work
Maine	5,512	3,678	66.7	2,445	6,123	5,866	95.8	39	157.0	9,370	26.1
New Hampshire .	7,164	4,130	57.6	2,927	7,057	5,746	81.4	37	190.7	3,460	84.6
Vermont	5,313	3,004	56.5	1,792	4,796	4,137	86.3	39	123.0	4,792	37.4
Massachusetts .	19,320	9,128	47.2	10,022	19,150	15,412	80.5	58	330.2	8,083	124.0
Connecticut ...	6,103	3,317	54.4	2,765	6,082	4,657	76.6	38	160.0	9,894	27.9
Rhode Island ..	3,224	2,249	69.8	979	3,228	2,884	89.3	9	358.7	982	99.7
New York	27,999	16,456	58.8	13,707	30,163	22,730	75.4	202	149.3	38,510	35.6
Pennsylvania ..	16,328	9,151	56.0	8,788	17,939	14,856	82.8	152	118.0	71,466	12.3
New Jersey	10,125	6,025	59.5	4,333	10,358	8,489	82.0	57	181.7	13,728	31.6
Delaware	1,615	893	55.3	573	1,466	1,169	79.7	11	133.3	2,267	25.3
Maryland	10,752	6,999	65.1	3,923	10,922	8,827	80.8	60	182.0	13,755	28.5
West Virginia .	19,388	10,631	54.8	9,124	19,755	14,014	70.9	110	179.6	29,639	30.8
Subtotal, East.States	132,843	75,661	57.0	61,378	137,039	108,787	79.4	812	168.8	205,946	29.8
Ohio	52,165	33,943	65.1	22,698	56,641	46,750	82.5	150	377.6	45,199	50.2
Indiana	46,114	31,024	67.3	18,965	49,989	42,007	84.0	165*	303.0	29,638	64.0
Kentucky	37,433	22,085	59.0	18,899	40,984	33,851	82.6	212	193.3	43,024	43.9
Illinois	31,450	18,865	60.0	13,652	32,517	27,103	83.4	156	208.4	41,275	33.1
Michigan	39,853	19,983	50.1	23,790	43,773	37,812	86.4	110	397.9	33,340	71.4
Wisconsin	31,661	18,425	58.2	12,452	30,877	23,607	76.4	101	305.7	30,904	40.3
Minnesota	44,358	28,531	64.3	16,865	45,396	39,421	86.8	165*	275.1	29,242	57.7
Iowa	25,886	16,923	65.4	9,210	26,133	22,266	85.2	189	138.3	31,022	29.7
Missouri	22,843	9,903	43.4	17,132	27,035	19,923	73.7	212	127.5	37,275	46.0
North Dakota ..	8,647	5,029	58.2	3,639	8,668	6,783	78.2	65	133.4	13,849	26.3
South Dakota ..	9,001	5,015	55.7	4,847	9,862	7,576	76.8	92	107.2	12,943	37.4
Nebraska	19,993	10,215	51.1	9,651	19,866	16,268	81.9	114*	174.3	19,276	50.1
Kansas	19,743	13,389	67.8	7,869	21,258	17,070	80.3	158*	134.5	23,931	32.9
Subtotal, Central States	389,147	233,330	60.0	179,669	412,999	340,437	82.4	1,889	218.6	390,918	46.0

/1 Number of county extension agents on Federal appointment June 30, 1938, except in States marked * in which cases the total months of service reported by county extension agents and assistants was divided by 12 to obtain number of agents on a yearly basis.

Table 3.--4-H Club and other data by States, 1938 (Contd.)

State	Enrollment 1937	1937 members re-enrolled in 1938	Percentage re-enrolled	New members 1938	Total enrollment 1938	Total completions 1938	Percentage completion 1938	County extension agents[1] 1938	Members per county extension agent	Rural boys and girls reaching 4-H starting age	Percentage reached by club work
Virginia	38,188	26,178	68.6	13,200	39,378	29,563	75.1	233	169.0	39,825	33.1
North Carolina	43,489	29,782	68.5	16,258	46,040	31,213	67.8	311	148.0	59,996	27.1
South Carolina	30,344	21,143	69.7	10,111	31,254	20,760	66.4	144	217.0	36,634	27.6
Georgia	71,399	46,786	65.5	30,182	76,968	55,633	72.3	315	244.3	50,281	60.0
Florida	18,520	11,495	62.1	8,078	19,573	13,107	67.0	112	174.8	15,373	52.5
Alabama	72,143	53,748	74.5	36,673	90,421	58,826	65.1	275	328.8	45,592	80.4
Mississippi	57,050	34,849	61.1	24,358	59,207	32,866	55.5	263	225.1	38,966	62.5
Tennessee	57,331	37,505	65.4	24,351	61,856	42,299	68.4	257	240.7	41,067	59.3
Arkansas	55,467	38,451	69.3	29,499	67,950	49,900	73.4	204	333.1	35,454	83.2
Louisiana	27,801	17,191	61.8	13,622	30,813	23,249	75.4	178	173.1	30,958	44.0
Oklahoma	50,444	34,861	69.1	19,429	54,290	44,700	82.3	183	296.7	38,175	50.9
Texas	65,823	36,191	55.0	31,954	68,145	34,658	50.9	561	121.5	78,837	40.5
Puerto Rico	2,342	821	35.0	2,746	3,567	3,216	90.2	56	63.7	-	-
Subtotal, South. States	590,341	389,001	65.9	260,461	649,462	439,990	67.8	3,092	210.0	511,158	50.4
Montana	7,265	4,707	64.8	3,662	8,369	7,409	88.5	54	155.0	8,186	44.7
Idaho	4,443	1,952	43.9	2,768	4,720	3,472	73.6	41	115.1	7,536	36.7
Wyoming	2,762	1,488	53.9	1,392	2,880	2,237	77.7	28	102.8	3,177	43.8
Colorado	8,575	4,426	51.6	4,739	9,165	6,657	72.6	68*	134.8	11,528	41.1
Utah	5,346	2,926	54.7	2,385	5,311	4,199	79.1	37	143.5	6,381	37.4
Nevada	813	477	58.7	409	886	730	82.4	18	49.2	948	43.1
New Mexico	5,581	2,580	46.2	4,515	7,095	5,529	77.9	48*	147.8	7,154	63.1
Arizona	2,838	1,193	42.0	1,655	2,848	2,260	79.4	25	113.9	5,968	27.7
California	10,924	6,456	59.1	5,213	11,669	9,316	79.8	151	77.3	26,987	19.3
Oregon	19,126	10,697	55.9	9,212	19,909	17,644	88.6	68	292.8	9,249	99.6
Washington	9,885	5,068	51.3	5,642	10,710	7,771	72.6	83	129.0	13,840	40.8
Hawaii	2,355	1,121	47.6	1,464	2,585	2,312	89.4	27	95.7	-	-
Alaska	141	147	104.2	235	382	328	85.9	3*	127.3	-	-
Subtotal, West. States	80,054	43,238	54.0	43,291	86,529	69,864	80.7	651	132.9	100,954	41.2
GRAND TOTAL	1,192,385	741,230	62.2	544,799	1,286,029	959,078	74.6	6,444	199.6	1,208,976	44.7

Extension Service Circular 312 June 1939

Twenty-five Years of 4-H Club Work

Analysis of Statistical Trends With Special Reference to 1938

Barnard Joy

Surveys and Reports Section

UNITED STATES DEPARTMENT OF AGRICULTURE
EXTENSION SERVICE
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